

# Successful Solutions for Today's Transportation

## Federal Highway Administration RESOURCE CENTERS

### Federal Highway Administration Marks New Era in Public Service

Resource Centers Initiate Increased Level of Outreach, Results, and Success

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The 21<sup>st</sup> century marks the beginning of a new era of public service for the Federal Highway Administration (FHWA). In 1999, the FHWA made pivotal changes to its field organization, establishing resource centers in Atlanta, Baltimore, Olympia Fields (near Chicago), and San Francisco. These resource centers represent a significant step in the FHWA's effort to strengthen partner/customer service and commitment to technology delivery.

The four resource centers allow the FHWA to better focus its expertise in the field and enhance the agency's ability to advance technology and best practices. The resource centers are staffed with technical and program experts whose primary responsibility is to provide expert advice to the divisions and our partners.

Flexibility is a key component of the resource centers to enable the FHWA to meet future transportation needs. Clustering expertise in the

centers provides greater opportunities to "grow" the next generation of experts.

The location of each center promotes continued coordination within the United States Department of Transportation, bolstering working relations with USDOT modes and other federal agencies on broad program matters. The establishment of the resource centers facilitates closer affiliation with professional organizations and universities.

Resource centers serve in an advisory capacity to the FHWA division offices in their primary role of program delivery to State departments of transportation, metropolitan planning organizations, and other partners and customers responsible for providing highway transportation and safety. In addition to technical expertise and program assistance, the resource center experts present training, support technology transfer activities, and assist with intermodal and interagency coordination.



Dale E. Wilken, Director  
Eastern Resource Center



A. George Ostensen, Director  
Midwestern Resource Center



Eugene W. Cleckley, Director  
Southern Resource Center



Leon J. Witman, Director  
Western Resource Center

## More than 1,300 Attend Eastern Winter Maintenance Expo

**Who:** Deborah Vocke and the Eastern Resource Center

**Where:** Albany, New York

**When:** September 8 & 9, 1999

**The Problem:** Nationally, municipalities and state highway agencies spend at least \$2 billion a year to combat the effects of snow and ice on travel during the winter months. After these storms, some \$4 billion is spent by those same jurisdictions to repair damage that is done to the infrastructure. Although there are no firm statistics available on the costs associated with lost time or wages incurred by those who cannot get to work and school, or the number of lives impacted when emergency response is delayed by snow-covered roadways, the importance of effective, efficient winter road maintenance operations is inarguable.

**The Service:** Led by Marketing Specialist Deborah Vocke, the Eastern Resource Center, with the support of the FHWA's New York Division, organized the **Fourth Annual Eastern Winter Road Maintenance Symposium & Equipment Expo**. The Expo attracted more than 1,300 snow plow

operators, highway superintendents, airport managers, and other public works officials. More than 155 exhibitors displayed their wares, ranging from heated windshield wiper blades to revolutionary ice melting materials to robotic pot hole patching machines, at the Pepsi Arena in Albany. Surrounded by 45 pieces of large-scale snow/ice control equipment, attendees learned how to keep America's transportation systems safe and mobile during inclement winter weather. They traded information on solutions to various winter driving hazards, attended educational sessions with recognized experts, and reviewed state-of-the art equipment.

Representatives from all levels of government were on hand from 38 States and Canada, Scotland and England. The participants attended breakout sessions on topics such as: *Automated Bridge Deck De-icing, Multi-Jurisdictional Storm Management, Experimenting with Salt Gradations, Weather Forecasting, Ice Storms and Emergency Management, and Filling the Gaps: Pothole Patching and More.*

Without the massive marketing effort and organizational skills of the ERC's Deborah Vocke, this Expo would not have been the huge success it was.

**The Plans:** The information presented and shared at this and upcoming Winter Expos is a direct reflection of the safety and mobility goals highlighted in the ERC's Annual Performance Plan and FHWA's National Strategic Plan. The Eastern Resource Center will help co-host this event annually, in an effort to maximize exposure of the latest technology needed to manage the winter operations of our highways.

### **The Feedback:**

Deborah Vocke has received numerous letters of commendation from vendors, attendees, and other parties for the success of the Eastern Winter Expo.



Winter Maintenance Exhibits



## Special Research Helps Resolve Conformity Test Conflict

**Who:** Joon H. Byun

**Where:** Baltimore, Maryland

**When:** September 1999

**The Problem:** Under the Clean Air Act Amendments of 1990, the Baltimore metropolitan region exceeded the ozone standards and was classified as an ozone nonattainment area. By law, the region had to have a State Implementation Plan (SIP) approved.

The Baltimore Metropolitan Council conducted a formal analysis to determine whether the region's transportation plan was in conformity with the SIP. A major problem arose when several new projects were added to the plan and new vehicle registration data (1996) were used for conformity analysis. The plan passed the conformity test for years 2002 and 2005 using 1990 vehicle registration data. It failed for both years when 1996 vehicle registration data were used.

Controversy erupted when officials decided to continue the use of 1990 vehicle registration data for the conformity analysis, despite the more recent data's availability.

**The Service:** In an action which exemplifies the excellent "networking" spirit existing between FHWA Headquarters and the Resource Centers, Cynthia Burbank, Program Manager of the FHWA's Planning and Environment Core Business Unit, asked the Eastern Resource Center's Joon Byun to examine why the 1996 vehicle registration data failed conformity tests. Joon, the Center's Air Quality Modeling Specialist, scrutinized all the models, including the travel forecasting model and emissions factor model. He analyzed their inputs, assumptions, data compatibilities, etc. Joon provided a 13-page technical report to FHWA Headquarters, and the findings were shared with the U.S. Environmental Protection Agency, Baltimore government officials, the Maryland Department of Environment, and the Federal Transit Administration. Using Joon's exhaustive and detailed analysis as the basis, the EPA, FHWA, FTA, and Maryland are negotiating what methodologies are appropriate for the Baltimore region's conformity test.

**The Plans:** Joon's work to assist Federal, State, and

local transportation agencies with air quality modeling and regulatory issues is fully consistent with the FHWA National Strategic Plan's emphasis on human and natural environments. The Strategic Plan calls for protecting and enhancing the environment through initiatives in environmental analytical models, new technologies, and research. His efforts are also consistent with the Eastern Resource Center's FY2000 Performance Plan, which encourages policy and program guidance in a timely fashion to areas facing conformity lapses or other obstacles with transportation plans.

### **The Feedback:**

Ms. Burbank and James Shrouds, Director, FHWA Office of Natural Environment, have expressed appreciation for Joon's success in evaluating the modeling issues associated with the Baltimore conformity determination. In a memorandum to the ERC Director, they praised his report as being extremely comprehensive and providing an excellent evaluation of the issues involved, all done in a very short time frame.

*Joon's work . . . with air quality modeling and regulatory issues is fully consistent with the FHWA . . . emphasis on human and natural environments.*

# CORSIM Helps Evaluate Signal Systems in the Office Rather than on the Street

**Who:** William Brownell

**Where:** Olympia Fields,  
Illinois

**When:** July 26, 1999

## **The Problem:**

Tremendous opportunities for Resource Centers abound in the traffic signal area. States and municipalities have technical problems with signal systems and have a need for training and expert assistance in this engineering discipline. For example, many people are not aware of the effectiveness of the Microscopic Corridor Traffic Simulation (CORSIM) program in evaluating proposed signal timing changes and signal preemption on system performance.

**The Service:** The Midwestern Resource Center arranged a summer seminar to introduce CORSIM to an audience of traffic professionals. The ultimate purpose was to improve traffic operation and reduce traffic delay through better signal operations. Representatives of various municipalities, traffic

operations consultants, and officials from the Illinois Department of Transportation attended. A professor and graduate student from Purdue University made presentations and provided a demonstration of a traffic controller interface with CORSIM. The interface will allow States and municipalities to simulate and analyze proposed timing changes in the office rather than on the street.

**The Plan:** This seminar is an excellent example of a Resource Center advancing the Mobility goal in the FHWA National Strategic Plan. Better traffic signal systems will improve the public's access to goods and services and reduce delays on Federal-aid and other highways.

**The Feedback:** The seminar was very popular. Comments from the attendees were enthusiastic and positive. Many people expressed a desire for the Midwestern Resource Center to conduct more seminars of this type.

*"This seminar is an excellent example of a Resource Center advancing the Mobility goal.... Better traffic signal systems will improve the public's access to goods and services and reduce delays on Federal-aid and other highways."*

# Forum Addresses Common Issues and Current Practices Concerning Weigh-in-Motion Equipment

**Who:** Byron Low

**Where:** Kansas City, Missouri

**When:** September 23 - 24, 1999

**The Problem:** There are numerous issues and problems concerning the acquisition, installation and maintenance of Weigh-in-Motion (WIM) equipment. No WIM forum exists that brings the field technicians and vendors together to address common issues and share ideas, current practices, experiences, and solutions. When traffic data conferences are held, WIM technical issues are not discussed.

**The Service:** Byron Low of the Midwestern Resource Center, with help from Fred Orloski of the FHWA's Michigan Division, developed and organized a WIM technical exchange conference to bring State technicians, vendors, experts and others together. More than 50 technicians from 15 different States participated and were able to discuss mutual concerns about WIM equipment. A summary of

the workshop is being prepared and will be an excellent public reference in this extremely important area.

**The Plan:** One of the objectives in the FHWA National Strategic Plan is to preserve and enhance the infrastructure of Federal-aid highways. It is essential for States to have a WIM program in place that can provide high quality and useable weigh data for planning and pavement design. This WIM conference was just one effort by the Midwestern Resource Center to achieve the Strategic Plan objective.

## **The Feedback:**

The workshop would not have been held if the MRC had not taken the initiative to put it together. Virtually all participants praised its content and organization. A major success noted by a number of them was the opportunity to "network" with their peers and identify solutions to specific problems. Participants expressed a strong desire to have another WIM workshop in the near future.

# Training Video Helps Loader Operators Eliminate Mishandling of Aggregates

**Who:** Thomas M. Bryan

**Where:** Olympia Fields, Illinois

**When:** March - July 1999

**The Problem:** Stricter quality control and quality assurance requirements in asphalt and concrete industry contracts have placed an unfamiliar burden on the aggregate industry (gravel and sand producers). Aggregate companies must now deliver a product based on specific target-oriented materials and mixes, rather than conventional end-product material provisions. Improper stockpiling and handling of aggregates while attempting to satisfy the stricter requirements creates a non-uniform gradation of materials. This mishandling of aggregates is better known as segregation. There is an immediate need for training to prevent segregation.

**The Service:** The MRC's Thomas Bryan initiated and supervised the preparation of a videotape to train front-end loader operators in the aggregate industry. Tom worked with industry and

FHWA resources to get the videotape completed. In addition to promoting the idea, he negotiated funding arrangements with the FHWA's Technology Transfer Centers and other sources, including industry; established purchase order requirements; helped write the videotape script; and worked with a media company to edit the tape. Tom's effort resulted in a state-of-the-art instructional tool which can be used throughout the country.

**The Plan:** A key objective in the FHWA National Strategic Plan is to enhance the infrastructure of Federal-aid highways. Another objective is to improve the operation of the Nation's highway systems. This MRC-inspired videotape advances both objectives.

**The Feedback:** The videotape was greeted with gratitude, acclaim, and enthusiasm by the aggregate industry, as well as Federal and State highway materials personnel. All parties described it as overdue and badly needed.

# "Stop Red Light Running"

## Media Event in Chicago Raises Community Awareness

**Who:** Patrick Hasson

**Where:** Chicago, Illinois

**When:** September 23, 1999

**The Problem:** The FHWA has an excellent program to reduce highway accidents — "Stop Red Light Running".

During National Stop on Red Week, many people were called on to reach out to communities and the press to convey this important safety message. As a major city, Chicago was ripe for targeting with a media outreach activity, but nothing was planned, despite the existence of the FHWA's program.



**The Service:** The Midwestern Resource Center established a partnership with NHTSA to create a media event in Chicago that would include transport, police, and judicial officials, as well as a victim of a vehicle which ran a red light. The goals were to raise awareness in the community about the problem of red

light running; promote the good work and products emanating from the FHWA and our partners in this area; and provide local officials with an opportunity to convey their own messages and share their activities and programs in the safety arena, with a focus on red light running. Pat Hasson of the MRC enlisted the Chicago Police Department to carry out increased red light running enforcement during National Stop on Red Week. He persuaded Judge Patrick McGann, Supervising Judge, Traffic Court, to give his views on the effects of red light running as seen from the bench. DaimlerChrysler and the Rehabilitation Institute of Chicago also participated in the event.

**The Plan:** There is no better goal in the FHWA National Strategic Plan than to improve safety; there is no higher priority than the Plan's objective of reducing the number of highway-related fatalities and injuries in our country. This massive MRC public affairs campaign

was surely a major contributor to achieving those aims!

**The Feedback:** The MRC goal was to carry our message to as much of the Chicago driving public as possible. We were able to get media coverage from four television stations, three radio stations, and two major newspapers, reaching an estimated audience of 11.7 million people in all media sources. Direct feedback is difficult to get, but with this much media exposure, it is safe to say the media and public supported the campaign. Many media commentators mentioned the event and made a point of reporting the National Strategic Plan's safety goal of a 20% reduction in fatalities and serious injuries in 10 years. All participants in the campaign stated they were pleased to have had the opportunity to support the Stop Red Light Running effort.

# SRC Advises Florida DOT Seeking Answers on I-4 Corridor

## Director Gene Cleckley leads multi-modal team in defining goals to solve problem

**Who:** Eugene Cleckley and a multi-modal team of experts

**Where:** Florida

**When:** February 23-25, 1999

**The Problem:** The I-4 transportation corridor in central Florida connects Tampa to Daytona Beach and passes through the heart of Orlando. It is one of the most heavily traveled highways in the Nation and is becoming busier every day. The corridor serves Disney World, Sea World, and Universal Studios, commuters traveling to a booming downtown Orlando, hundreds of hotels, motels and businesses, Orlando International Airport, and rapidly developing cities between Orlando and Daytona.

For more than 10 years, the Florida DOT has been studying reconstruction of I-4 in this corridor, attempting to resolve such critical issues as traffic growth and congestion, the need to modify and/or add 25 interchanges, and the many environmental impacts of any action. In addition, working through the FTA, Orlando and Orange County are pursuing a 52-mile light rail transit system that could share I-4 right of way.

In early 1999, Florida asked FHWA Division Administrator

James St. John for help in expediting review of the numerous reports required in the Federal approval process. The State had already committed publicly to a final schedule for design and construction. Jim proposed that rather than follow the usual path of formal submission with sequential reviews in three levels of FHWA offices, FDOT and FHWA would host a 3-day workshop in Orlando to develop solutions to speed the process. Jim asked the Southern Resource Center for assistance.

**The Service:** SRC Director Eugene Cleckley responded positively and quickly to help solve Florida's problem. Gene assembled a multi-modal team of experts and established a 3-fold goal for it: 1) explain to Florida the complex issues surrounding such a large-scale transportation project; 2) help the State understand and navigate the Federal approval process; 3) continue to assist the State as the project proceeds. Members of his team included SRC Socio-Economic Environmental Specialist Wendell Stills and Intermodal Transportation Specialist John Humeston, FHWA Design Engineer Bobby Finch, and Attorney-Advisor David Sett. Gene also arranged for FTA

Regional Administrator Susan Schruth and her Florida manager Tony Dittmeier to participate, paying for their travel with SRC funds.

Gene and his team worked tirelessly for 3 days to solve Florida's problems in such areas as right-of-way, historic properties, engineering, and the environment. Gene explained in particular the key Environmental Impact Statement approval process. The massive partnering effort produced transportation choices which have given the SRC's Florida customers complete satisfaction so far. The SRC is confident the results, expected in 2001 with the beginning of construction, will be just as satisfying.

**The Plans:** The Southern Resource Center and Florida Division office are assisting FDOT in addressing the many issues surrounding the I-4 project, as well as helping in understanding and complying with the Federal approval process. We are aiding FDOT in identifying, analyzing, and developing solutions to the transportation challenges in Orlando, and will continue to assist the agency as this critical project proceeds. This facilitation is bringing together FHWA, FTA, FDOT,

*"Our ability to better understand the Federal approval process [is] an invaluable resource. We want to thank each of you for your commitment to work with us through the process."*

— Vicki L. Smith, P.E.  
Keith and Schnars, PA  
Project Director, Trans4mation

transit operators, local officials, and the public to provide transportation choices which bring results. The intermodal collaborative effort will enhance the State transportation system's operations and efficiency and improve the public's access to activities, goods, and services. This includes improving highway safety and the economy in the Orlando area and throughout Florida.

At the same time, the SRC and Division office visited parts of many communities along the I-4 corridor during their 3 days in Florida, working hard to develop strategies to protect the environment and preserve community and

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neighborhood livability and quality of life.

All these efforts are consistent with the goals and measures of the National Strategic Plan and SRC Annual Performance Plan.

**The Feedback:** Eugene Cleckley received a letter of praise from Vicki Smith, the I-4 Project Director, thanking him for providing an “invaluable resource” to her engineering firm, the Florida DOT, and the other SRC customers involved in the project. Florida Senator Bob Graham wrote to top DOT officials and expressed his delight at the cooperation between the DOT and his State. Nancy Houston, FDOT District Secretary, praised FHWA’s technical support and said “numerous successes were realized as well as relationships developed that will ultimately culminate . . . in an environmental document acceptable to all parties . . . .”

## USDOT Administrations Cooperate to Benefit Charleston Community

**Who:** Robert Radics

**Where:** Charleston, South Carolina

**When:** November 1998, May and June 1999

**The Problem:** Robert Radics is the Southern Resource Center’s transportation modeling expert. In November 1998, Bob was appointed Chairman of the ONE DOT Intermodal Planning Advisory Group (IPAG). His first charge was to find an area of the country where the ONE DOT concept can truly make a difference in solving a transportation problem. Bob’s effort would become the national standard for how intermodal cooperation should ideally work. After considerable research, Bob selected the port expansion project on Daniel Island around Charleston as the situation where his expertise and ONE DOT could help the most.

Charleston’s problem is faced by every community considering a major transportation project: What are the impacts on an area if adequate access is not part of the model, and how does the community discover and deal with the impacts? Without rail access, an exclusive truck freeway, or other type of entry to the Daniel Island terminal, there

will be a major negative impact on existing traffic, which in turn will have major social, economic, and environmental ramifications.

**The Service:** Bob began to develop a multi-modal solution to the problem. He held 5 listening sessions in May 1999, attended not only by every DOT mode but by South Carolina State and local officials. Then on June 10, he presented to ONE DOT board members and DOT Regional Administrators his analysis of what was being done right and wrong by the various transportation modes. He explained what the modes can do and what his IPAG group is already doing to make sure the problem is solved. Within the Southern Resource Center, Bob began working with our Innovative Financing Specialist on a package of Federal funding options for Charleston.

Bob’s efforts have already shown **results**. Charleston is aware of the need to carefully consider alternative access to the port, and knows through Bob Radics it will have several **choices** for access and funds. Most important, every entity involved is **satisfied** with the progress so far in a situation which could have become a societal nightmare.

**The Plans:** Bob has spent the past year helping the Charleston community identify potential social, economic, and safety effects associated with the Daniel Island project. Because of him, Charleston will have a more efficient transportation system and the public will have much better access to activities, goods, and services. Bob’s solutions also take into account the natural and human environment around Daniel Island. The area’s livability and quality of life will be protected, exactly what the National Strategic Plan and SRC Annual Performance Plan call for.

**The Feedback:** Bob received a Certificate of Appreciation from FAA Regional Administrator Carolyn Blum, as well as many expressions of praise from other Regional Administrators, for his expertise in transforming a possible problem into a definite success with national implications.

# GA Regional Transportation Authority Establishes Transportation System Performance Measures

**Who:** Eric Maurer

**Where:** Atlanta, Georgia

**When:** July 26, 1999 to the present

**The Problem:** On July 14, 1999, the newly established Georgia Regional Transportation Authority (GRTA) initiated a process to set transportation system performance targets in the Atlanta Regional Transportation Plan and develop alternatives for achieving those targets. The GRTA Board of Directors directed its staff to develop performance targets in many areas of transportation, including human and natural environment, along with a transportation model to test a variety of alternative strategies. The staff was assigned a deadline of August 11, 1999, to give its report to the Board. This extremely short and demanding schedule led the GRTA staff to request technical assistance from the Southern Resource Center.

**The Service:** Eric Maurer, SRC Air Quality Specialist, was sent on temporary detail to GRTA on July 26. Both GRTA and the SRC viewed Eric's unique experience with the Environmental Protection Agency, Atlanta Regional Commission, and FHWA as

invaluable in assisting the GRTA staff. Within 1 week, Eric developed a framework for evaluating and prioritizing performance measures to assess mobility, efficiency, public access, environmental effects, project funding options, and other factors involved in a transportation system. In addition, Eric organized and led a 1-day work session at GRTA and secured the participation of more than 30 national, regional, and local experts to assist in analyzing alternative performance measuring approaches. Participants included representatives from the Office of the Secretary, FHWA headquarters, FTA headquarters, Surface Transportation Policy Project, Texas Transportation Institute, and the Environmental Defense Fund. Eric summarized the extensive proceedings of the work session in a report for the GRTA Board, and he assisted in compiling the final GRTA staff presentation to the Board on August 11. The deadline was met.

**The Plans:** The key charge to GRTA by its creator, Governor Roy Barnes, was to improve Atlanta's transportation system and the quality of the region's air. This monumental effort

by Eric Maurer will make that goal a reality. The public will find the transportation system much more efficient and easier to use, every transportation mode will be favorably affected, and the surrounding environment will be enhanced. Communities will be much more livable because of cleaner air. Highway safety, always a major concern, will be improved because of Eric's work. The National Strategic Plan and SRC Annual Performance Plan have been well served!

**The Feedback:** At the August 11 meeting, GRTA Board members praised the quality of the transportation system analysis facilitated by Eric. Members also expressed their appreciation for the SRC's support and specifically for Eric's excellent work. The *Atlanta Journal-Constitution* reported favorably on the analysis in an August 12 story, calling it a "blueprint" for future similar studies in the Atlanta metropolitan region. The GRTA staff expressed its gratitude for Eric's efforts in a letter to Eugene Cleckley, Director of the Southern Resource Center.

# Innovative Financial Planning Accelerates Project Completion

**Who:** Frederick Werner

**Where:** South Carolina,  
Tennessee, Texas, Puerto Rico

**When:** June 1998 to the  
present

**The Problem:** Many financial officials at all levels of all governments (State, local, and Federal) are not aware of the multitude of innovative finance techniques which can be used to accelerate important transportation projects. The Southern Resource Center's Innovative Finance Specialist, Fred Werner, is the person who can solve that problem for any customer. Fred is an expert in using such complex financial vehicles as GARVEEs, TIFIA, SIBs, toll credits, and many others to help officials manage their Federal transportation programs more efficiently and effectively.

**The Service:** Fred Werner has given financial strategy briefings to the Directors of Finance for the Tennessee and South Carolina DOTs, the Secretary of Transportation for the Puerto Rico DOT, Texas financial decisionmakers, and other leading officials across the country on how to accelerate the completion of transportation projects. Because of Fred's guidance and expertise, Puerto Rico



Frederick Werner  
Innovative Finance Specialist, SRC

and the three States above have the opportunity to receive more than \$1 billion in Federal credit assistance they would otherwise not have been aware of! Their financial proposals will be reviewed by a multi-modal ONE DOT committee. If approved, important highway projects in Greenville, SC (bypass — \$80 million); Charleston, SC (toll expressway — \$90 million); Knoxville and Gatlinburg, TN (toll bypasses — \$100 million each); and Austin, TX (bypass — \$350 million) will be completed faster than they would have been without our SRC expert's advice. In addition, a San Juan, PR rail transit project (\$300 million) will be constructed at an accelerated pace.

Fred and his partner on the SRC's Finance Team, John Jeffers, also assisted the FHWA's Georgia Division and the Georgia Governor's Office in determining the best way to organize the

Georgia Regional Transportation Authority and allocate organizational costs.

**The Plans:** Fred Werner's financing strategies are indicative of the Southern Resource Center's commitment to the National Strategic Plan. The residents of the communities affected by the transportation projects will not only have improved access to activities, goods, and services, they will have it faster than they would have if Fred's expertise were not available. His services and those of John Jeffers are also emblematic of the SRC Annual Performance Plan's dedication to achieving results which satisfy all our customers.

**The Feedback:** Fred has received numerous letters and e-mails of gratitude for providing innovative financing strategies. Eugene Cleckley, SRC Director, received the following message from Frank Vickers, Financial Manager for FHWA's Tennessee Division: "Just wanted to say thanks for providing a couple of great technical experts, John Jeffers and Fred Werner. They did an excellent job in providing valuable information . . . to us and several Tennessee DOT officials."

*"Just wanted to say thanks for providing a couple of great technical experts, John Jeffers and Fred Werner. They did an excellent job in providing valuable information . . . to us and several Tennessee DOT officials."*

— Frank Vickers,  
Financial Manager  
Federal Highway Administration  
Tennessee Division

# Greater Safety and Cost Savings Achieved through Advanced Geotechnical Engineering



Barry Berkovitz  
Geotechnical Engineer, SRC

**Who:** Barry Berkovitz

**Where:** Florida, Georgia, North Carolina

**When:** Mid-1998 to the present

**The Problem:** Most State DOTs do not have technologically advanced bridge design and construction practices, nor is their geotechnical engineering knowledge at the level required for major bridges with unique load conditions and difficult subsurface soils. Therefore, long-term stability of the bridges cannot be assured and major cost-saving opportunities cannot be taken advantage of. In order to avoid significant and costly damage to bridges, geotechnical expertise which represents state-of-the-art international practices (not available in the DOTs) is necessary.

**The Service:** With more than 30 years of international experience and expertise in geotechnical engineering and deep bridge foundations, and an innovator in high-capacity load test programs, SRC Geotechnical Engineer Barry Berkovitz is able to solve these problems quickly and easily. Barry provided training, design assistance,

construction guidance, and technical expertise on eight projects in 3 States in just the past year.

In North Carolina, Barry's assistance and recommendations on 6 major bridge projects resulted in the development and execution of "predesign foundation load testing" programs. Each innovative test program resulted in significant cost savings and improved safety. The programs were so successful that the North Carolina DOT documented them in a Transportation Research Board paper, "NCDOT's Experience with Predesign Load Testing." For more than 14 months, Barry has provided Georgia similar geotechnical analysis assistance to evaluate the safety of the existing I-95 bridge over the Satilla River. His expertise in analyzing the bridge's unique site conditions resulted in a final design for almost unprecedented 8.5-foot diameter by 170-foot deep drilled shafts! The Florida DOT asked Barry for specific bridge foundation recommendations to support a design for a 7-span bridge on SR 121 over the Santa Fe River. The FDOT design was for pipe pile foundations, yet

the site and soil conditions were more conducive to drilled shaft foundations. In only 7 days, Barry provided detailed technical guidance on materials and construction which ensured the pipe pile foundation design was stable and structurally feasible.

**The Plans:** Barry Berkovitz' work to guarantee the stability of major bridges is fully consistent with the National Strategic Plan's emphasis on improving the country's defense mobility and the highway system's capacity to support mobilization activities. He also ensured the continued preservation and upgrading of our highway system. Barry's achievements are similarly reflected in the goals of the SRC Annual Performance Plan, including the integration of motor carrier and highway safety and the call for early success stories.

**The Feedback:** State DOT and Division Office personnel have given Barry overwhelming praise for the timely "cutting edge" geotechnical expertise he provided. The NCDOT's satisfaction is clearly represented by its submission of the 6 State projects to the prestigious TRB.

# SRC Offers Pavement Life-Cycle Cost Expertise

**Who:** Michael Smith

**Where:** States across the country

**When:** 1999 into 2000

**The Problem:** America's leadership position in the global economy is constantly being challenged. To meet challenges successfully, we must improve our transportation system every year; without continuous improvement in it, our country will lose its economic edge. One of the basic elements in an overall strong transportation system is an economically efficient highway system, and an integral element of that is having the most technologically advanced pavements possible.

**The Service:** The Southern Resource Center's Materials Engineer, Michael Smith, is an internationally recognized expert on life-cycle cost analysis in pavement design. He is sought by government and private groups across the country to present instructional workshops on this important highway topic. Recent workshops (all lasting 2 days) were in Alaska to the Alaska DOT and local highway departments; to Washington State and Oregon DOT employees in Portland; and to Hawaii DOT employees in Honolulu.



Michael Smith  
Materials Engineer, SRC

He facilitated a Model Development Meeting in Kansas City, Missouri, at which the National Asphalt Pavement Association, the American Concrete Pavement Association, and pavement specialists from Ohio, Nevada, Wisconsin, and Texas participated. Mike gave a presentation at Louisiana's National Transportation Conference and the Design-Build Institute of America's national conference in Salt Lake City, Utah, earlier this year. In June, the FHWA New Mexico Division asked him to meet with the New Mexico State Pavement Design Engineer and provide a technical review of the State's proposed pavement design procedure. Mike gave advice on probabilistic and simulation techniques to address uncertainty in the design. At the request of the Texas Division, Mike met with the Texas DOT and the Texas Transportation Institute regarding the

formation of a regional forensic investigation team. The FHWA Nebraska Division made a similar request, asking him to give a presentation on pavement design to the Nebraska DOT.

As you can see, Mike's expertise has resulted in pavement officials in and out of government gaining the information needed to increase the life cycle of highways across the country.

**The Plans:** The FHWA National Strategic Plan has a direct reference to life-cycle costs, citing the need to reduce them by 25 percent in the next 10 years. This will improve the return on investment of the Nation's highways, one of two objectives in the Plan's goal of increased productivity for transportation. Michael Smith's life-cycle cost workshops are also consistent with the SRC's Annual Performance Plan, which emphasizes sharing expertise and providing training which achieves results.

## **The Feedback:**

Mike Smith has received tremendous oral and written praise after all his workshops.

*Mike Smith receives many requests for presentations and is available for training in Life-Cycle Cost Analysis (LCCA):*

*"I got your name from Jim Walls as the best person to contact regarding getting the course or workshop on probabilistic LCCA in Pavement Design taught at a DOT. I would like to have the course here and get ALL the engineers to attend..."*

*Judith Corley-Lay  
North Carolina Department of  
Transportation*

## Safety Town Hall Meeting Sets Direction for Southern Region

**Who:** Judith Johnson and Michael Thomas

**Where:** Atlanta, Georgia

**When:** March 2, 1999

**The Problem:** The National Town Hall Meeting on Transportation Safety, an extremely important event hosted by Secretary Slater which opened the first National Transportation Safety Conference, used Atlanta as one of its four "kickoff" cities. The FHWA's Georgia Division worked extremely hard on very short notice to organize and publicize the event. The Division did an excellent job, but did not have enough people or specific expertise to give the meeting the media and marketing recognition it deserved. In a splendid example of cooperation and "networking" between FHWA Headquarters and a Resource Center, Judith Johnson and Mike Thomas, HQ employees not yet assigned to the Southern Resource Center, were sent to assist in publicizing and organizing the Atlanta portion of the Town Hall Meeting. Judith and Mike,

now the SRC's marketing and media experts, arrived on only 2 weeks' notice. Since Atlanta Mayor Bill Campbell and other dignitaries from government and private industry were scheduled to participate, and since more than 100 guests had already committed to attending, such a short time frame presented an extremely difficult challenge.

**The Service:** In addition to overseeing the preparation of the room for satellite television feeds, Judith and Mike prepared media packets, developed on-site promotional materials, supervised a large staff of DOT volunteers, helped develop the Atlanta agenda, consulted with the television producer and crew, arranged transportation to the site for guests who needed it, and ensured the adequacy of supplies ranging from seats for guests to water for the participants. All the while, they answered questions from and solved the problems of media, dignitaries, guests, volunteers, contractors, and crew! Because of the marketing choices made by

SRC experts Judith and Mike, the result was a meeting which gave every attendee the satisfaction of knowing safety is indeed the DOT's top priority. The SRC proved that our agency is prepared to back its words with action.

**The Plans:** Judith and Mike organized intermodal partnerships and interagency teamwork to present this extremely important safety event to the Atlanta public. The programs and initiatives introduced at the Town Hall Meeting on Transportation Safety will play a critical role in the FHWA's effort to reach the safety objectives in the National Strategic Plan. The SRC's Annual Performance Plan also places a priority on these goals, as well as on integrating FHWA safety initiatives and activities in the Resource Centers.

**The Feedback:** Judith and Mike, the SRC, the Georgia Division, and all the volunteers received praise from Mr. Slater's staff and many guests on the effectiveness of the entire program, especially the Atlanta portion.

# DBE Civil Rights Briefing Bridges Gap from Old to New Regulations

**Who:** Teresa Banks

**Where:** Atlanta, Georgia

**When:** March 23-24 and August 5, 1999

**The Problem:** The DOT issued new Disadvantaged Business Enterprise (DBE) regulations on February 2, 1999, the first new regulations in 19 years. They required all major DOT recipients of Federal funds to develop new DBE programs by September 1, 1999. There have been many court cases and much legislation since the original rules were promulgated in 1980; the new ones reflect those events and contain significant changes in program administration. All these circumstances made it imperative that information, guidance, and technical assistance be provided to DOT customers and partners as quickly as possible.

**The Service:** The Southern Resource Center, led by our Civil Rights Director, Teresa, has conducted two briefing sessions for our customers and partners nationwide. The briefings were attended by representatives of the



Teresa Banks  
Civil Rights Team Leader, SRC

DOT, other government agencies at every level, universities, transit systems, and private industry, as well as attorneys and many other interested parties. For the crucial first briefing in March, Teresa arranged for the primary author of the old and new DBE regulations, Robert Ashby, to speak. She also secured the participation of Charles Klemstine, FHWA DBE Program Specialist, another key writer of the new rules. Teresa planned the entire agenda, which featured speeches, question-and-answer sessions, and panel discussions, all designed to clarify the regulations and address audience concerns about them. The August session, also developed and brought to fruition by

Teresa, expanded the focus to include group discussions on what DBE program ideas have worked best so far and what concerns must still be addressed.

**The Plans:** Teresa Banks' efforts to disseminate information about DBE regulations will dramatically enhance the community and social benefits of highway transportation. More citizens will have more opportunities to participate in improvements to the transportation system, which will inherently lead to greater public satisfaction with highway systems and projects. Teresa expanded the FHWA's customer base and accomplished it by developing partnerships throughout government and private industry. These are all key elements of the National Strategic Plan and the SRC Annual Performance Plan. Finally, Teresa met the implicit and explicit mandate in both plans, which is to ensure that opportunity in all aspects of transportation is made equally available to everyone and never denied to anyone.

**The Feedback:** Teresa received dozens of extremely complimentary notes at each session. In fact, just about the only "criticism" she received was the almost universal sentiment that she should have allotted more days to the briefings because they were so beneficial!

# Workshops Explain Air Quality Compliance for Transportation Project Development

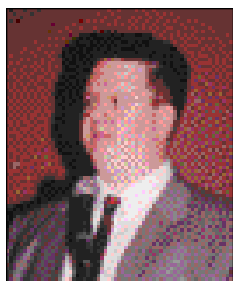
**Who:** Andrew Edwards

**Where:** States across the U.S.

**When:** January 1999 into 2000

**The Problem:** In July 1997, the Environmental Protection Agency promulgated new National Ambient Air Quality Standards. Unless designated areas across the country meet these standards by July 2000, they will be considered nonattainment areas and face the loss of substantial Federal funds. Local and State transportation projects are immensely affected, because every project, plan and program must perform a regional emissions analysis to show there are no adverse air quality effects from it. There is a clear and immediate need for transportation officials at every level of government to understand the process required to conform to the EPA's regulations. Many officials, including some in the FHWA Division Offices, have never faced this task, which adds a new layer to transportation project development.

**The Service:** The Southern Resource Center recognized early the critical need for training. Our air



Andrew Edwards  
Air Quality Specialist, SRC

quality expert, Andy Edwards, led a team which developed a two-day Transportation Conformity Workshop. It gives customers from the FHWA, State DOTs, local transit administrators, and other stakeholders and partners an introduction to the compliance process and its relationship with metropolitan planning. Andy presents several case studies and practical examples which give customers specific details on this new and complicated aspect of transportation project development. Since the beginning of 1999, he has traveled to Alabama, Florida, Georgia, Kentucky, South Carolina, and Oklahoma to conduct workshops. Upcoming sessions will be in Alaska, New Mexico, Texas, and Indiana. He is speaking in Indiana at the invitation of the FHWA's Indiana Division Office Planning and Programming Team Leader, who participated in Kentucky and gave Andy rave reviews.

[Note: Air quality expert, Eric Maurer, assisted Andy in four States and conducted a North Carolina workshop himself. Eric now works as an FHWA attorney in Atlanta, Georgia.]

**The Plans:** The SRC's Annual Performance Plan emphasizes the importance of sponsoring meetings, conferences, and other forums to share information and create innovative problem-solving approaches. Andy's extraordinary efforts certainly exemplify this. His workshops definitively meet one of the key goals of the National Strategic Plan, to enhance our country's human and natural environment. As the NSP says, "... FHWA will promote the construction, maintenance, and use of highways that are compatible with the national environmental objectives." Our SRC expert's work in developing and sharing critical information will indeed contribute to environmental advancement for years to come.

**The Feedback:** Andy has received overwhelming written and oral praise from workshop attendees.

*"Andy is very knowledgeable of the technical aspects of air quality modeling and the legislative requirements of the Clean Air Act....what made this workshop stand out was Andy's willingness to make the information address the New Mexico situation. Too often, instructors are more intent on covering the required information....Andy was willing to dig deeper to make the course relate to New Mexico and to offer suggestions on how the process can be improved."*

Reuben Thomas  
New Mexico Division Administrator  
Federal Highway Administration

# Public Awareness Effort Results in an Increase of more than 20% in CMV Medical Waivers

**Who:** Donald Harris

**Where:** Across the United States

**When:** May - October 1999 (when OMCHS was split from FHWA)

**The Problem:** Many commercial motor vehicle drivers, motor carriers, and industry trade associations are unaware of the existence of medical waivers for certain drivers. State vocational rehabilitation agencies and many other government entities and officials are also unaware of the possibility for medically handicapped CMV drivers to continue their careers despite their conditions. This lack of knowledge can result in safe and conscientious truck and bus drivers being removed from their jobs unnecessarily, resulting in great economic and personal hardships for them and their families.

**The Service:** SRC Medical Programs Specialist Don Harris, one of the country's leading experts on CMV driver waiver programs and issues, instituted several strategies to increase public knowledge in this area. He sent letters to each Director of Vocational Rehabilitation

for every State in the SRC region. These letters resulted in tremendous interest in the FHWA waiver program by State vocational and transportation agencies. He prepared a news article promoting the FHWA's medical waiver programs for the Journal of Occupational and Environmental Medicine, prepared a standard waiver-information letter to accompany individual responses to all medical examiners who requested help with other FHWA medical regulations, responded to all customer telephone requests within 24 hours, and responded to written requests within 5 working days when in the office. While implementing all these communications strategies, our SRC expert continued to serve as a medical programs instructor for the National Training Center and delivered handicapped driver waiver courses to State and Federal personnel in Baton Rouge, Louisiana, and Cheyenne, Wyoming. Don also continued working with truck driver training schools to make them aware of the handicapped driver waiver programs. All these efforts led to an increase of over

20% in the number of CMV drivers who received medical waivers since Don Harris assumed his duties in May 1999. He and the entire SRC consider it one of our proudest successes that we have been able to save the careers of countless safe and qualified drivers.

**The Plans:** FHWA data have indicated from the beginning that CMV drivers with medical waivers actually have better safety records than drivers who do not need waivers. These data verify the validity of Don's work, and they are emblematic of the SRC's commitment to achieving the safety goals in our Annual Performance Plan and FHWA's National Strategic Plan.

**The Feedback:** SRC Medical Programs Specialist Harris has received countless letters and telephone calls thanking and praising him for increasing national awareness of medical waivers. These messages have come from State and local governments, companies employing affected drivers, and of course, from drivers and their families. A typical example is this from a

California trucker whose career Don saved: "I wanted to thank you . . . for the superlative service you gave me in acquiring my disability waiver. I expected something entirely different."

# Environmental Leadership Seminars

## Merge Transportation and Environmental Thinking

*“...I thought the meeting with Gene was very important to us at MDOT. Since we are in the midst of a transition in our department, I felt that this meeting helped give us a clear direction for the future. I believe the time spent together will smooth out some of the rough water that we always encounter when attempting to implement change.”*

*Jim Kopf  
Chief Engineer/Deputy Director  
Mississippi Department of  
Transportation*

**Who:** Eugene Cleckley, Robert Wheeler, and Chetna Dixon

**Where:** Louisiana, Kentucky, and North Carolina

**When:** October 13-15, October 25-27, and December 7-9

**The Problem:** The Federal Highway Administration is committed by mandate and moral to being a national leader in enhancing our human and natural environments. As far back as 1989, we established a Federal/State Task Force on Environment to improve the way transportation projects are planned and completed. The task force arrived at a key conclusion: **Any transportation project must consider mobility of the system, livability around the system, and environmental effects of the system as one entity, or the project will not succeed in the 21st Century.** The FHWA continues to embrace that principle. Until 1999, however, there had never been a concerted, organized effort to educate State and local government officials about the importance of merging transportation and environmental thinking.

**The Service:** Eugene Cleckley led a Southern Resource Center team in developing and conducting Environmental Leadership seminars across the South. The seminars are designed for government officials at all levels who have transportation and environmental decision-making responsibilities. Assisted by SRC Environmental Program Specialists Bob Wheeler and Chetna Dixon, Gene works with each audience to train them in creating a transportation project that is effective and efficient, yet still environmentally sensitive. Gene's team begins by identifying the many elements in a project, such as planning, location, permitting and design, and right-of-way. The SRC specialists then lead the audience in pinpointing obstacles to integrating these elements into a single planning process, and the group concludes by formulating strategies to overcome the obstacles and balance transportation and environmental concerns.

**The Plans:** The Southern Resource Center's Environmental Leadership seminars will result in

transportation projects that improve the public's access to goods and services, while simultaneously enhancing the natural environment around the projects and protecting the quality of life for the citizens who live nearby. These tremendous accomplishments embody the spirit and goal of the FHWA National Strategic Plan and the SRC's own Annual Performance Plan. The Southern Resource Center is very proud of the efforts of our environmental team, and we hope to lead these seminars across the country in the next millennium!

**The Feedback:** Virtually every person who attended the three seminars took the time to write words of praise to Eugene Cleckley and the Southern Resource Center. Many expressed the desire to return, most said they would encourage colleagues to attend in the future, and almost all said the Environmental Leadership seminar was creative, critical, and long overdue in the transportation field!

# Environmental Justice Workshop Focuses on Strategies to Better Decisionmaking



Robert Wheeler  
Planning and Environment  
Team Leader, SRC

**Who:** Ben Williams, Mary Jane Daluge, and other SRC Experts

**Where:** Atlanta, Georgia and Nashville, Tennessee

**When:** December 14-15, 1999 and March 1, 2000

**The Problem:** The Federal Highway Administration wants to be a national leader in changing the way highway projects are planned and carried out. The "Environmental Leadership" seminars taught by the Southern Resource Center across the country embrace the entire concept. In addition to the Leadership Seminars, the SRC is promoting national awareness of one of the most important elements in the concept—the need to recognize "Environmental Justice" in every transportation project. In a 1994 Executive Order, President Clinton instructed all Federal agencies to eliminate disproportionately high and adverse

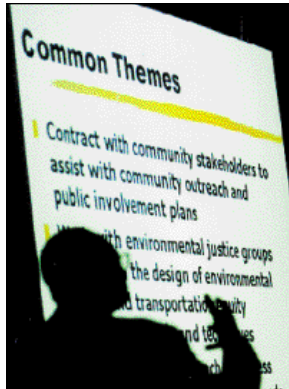
environmental impacts on low-income and minority populations in every action by every agency. The transportation community, while well-intentioned, is generally not aware of this Order or the DOT and FHWA Orders which followed and echoed it.

**The Service:** A team of SRC experts organized and led a December 1999 workshop in Atlanta, entitled *Making Environmental Justice Work*. The workshop brought together key transportation decisionmakers, first-line supervisors, and others involved in transportation projects from the SRC, FHWA Division Offices, State Departments of Transportation, and Metropolitan Planning Organizations throughout the 13 SRC States. The workshop's objectives were: 1) to help practitioners fully understand the relationship between Environmental Justice and FHWA actions; 2) to develop strategies for overcoming obstacles to fulfilling the Executive Order as well as the FHWA and DOT Orders; and 3) to secure commitments from all workshop participants that they would make Environmental Justice work.

This workshop was repeated in Nashville on March 1, 2000, by SRC Metropolitan Planning Specialist Ben Williams and Civil Rights Specialist Mary Jane Daluge. Mary Jane and Ben will lead identical workshops nationwide throughout the year. The SRC wants to revolutionize transportation thinking!

**The Plans:** Environmental Justice efforts will lead to transportation project planning that significantly enriches the lives of people around the projects, specifically low-income and minority citizens. The FHWA National Strategic Plan and the SRC's Annual Performance Plan explicitly emphasize that goal and implicitly demand it. Also as in the previous Success Story, the SRC is very proud of our vanguard efforts in this regard!

**The Feedback:** Workshop participants wrote, e-mailed, and telephoned their praise and appreciation for the SRC's enterprise and expertise. We fully expect the same types of comments at every workshop in the future.



Environmental Justice encourages community outreach and public involvement.



SRC Director Gene Cleaveley challenges officials to transform their thinking.

# Low-Profile Traffic Barrier Now Available

## Thanks to Efforts of WRC Safety Engineer

**Who:** Greg Schertz

**Where:** Texas

**When:** Spring - Summer 1999

**The Problem:** Western Resource Center Safety Engineer Greg Schertz has conducted safety training courses throughout the West since he joined the WRC. From discussions in those courses, it became obvious to Greg that there is a need for a temporary traffic barrier in urban areas which does not hinder sight distances.

The American Association of State Highway & Transportation Officials guide to roadside design contains information on such a barrier, known as the Low-Profile Concrete Barrier. It is patented by the Texas Transportation Institute (TTI) and can only be used in Texas unless a license agreement is signed with TTI. This step had never been pursued by any person or

jurisdiction, due to the time and effort required and the assumed high cost for a patented item.

**The Service:** Greg arranged a meeting with TTI to discuss the possibility of a simplified method for allowing jurisdictions across the country to utilize the Low-Profile Concrete Barrier. After listening to his prudent and detailed presentation, TTI agreed to share its idea. A simplified license agreement was soon developed. This effective piece of highway safety hardware is now available to all jurisdictions and construction contractors across the U.S. at a very low cost. Countless lives may be saved and highway accidents avoided as a result of Greg Schertz' initiative.

**The Plan:** The FHWA's goal in safety is very simple: keep improving highway safety and keep reducing accidents and fatalities. This is expressed clearly in the

National Strategic Plan and in countless Agency documents and statements. Greg Schertz' work certainly exemplifies his and the WRC's commitment to an admirable goal.

**The Feedback:** The following statement by a member of the Texas negotiating team is an example of the prevailing sentiment. "Greg [was] tremendous," said Terry Young, Executive Director of the Technology Licensing Office for the Texas A & M University System. "He called out of the blue and began talking with us, and out of those discussions we developed a standard form of contract which made this product available to contractors on a low cost basis. He helped us through the process of developing an approach to assure widespread adoption. This has been a tremendous asset in terms of public safety."

## Hawaii Saves \$600,000 on Bridge Evaluations

**Who:** Arlo Waddoups

**Where:** Hawaii

**When:** Spring 1999

**The Problem:** Hawaii had signed a contract with a consultant for scour evaluations of 10 bridges in the State. Hawaii transportation officials felt the consultant's proposed fees for this service were too high, but were not sufficiently familiar with bridge technologies to be sure. The State asked the Western Resource Center to assist in reviewing the contract and the consultant's

proposed work, and determining the appropriate payment.

**The Service:** Arlo Waddoups, Hydraulics Engineer on the staff of the Western Resource Center, went immediately to Hawaii to meet with top State officials. He reviewed the scour evaluation contract agreement point by point. After a thorough review of the proposed scope of work for scour evaluations, he provided valuable detailed comments that were instrumental in giving Hawaii the basis for seeking to reduce the initial fees. It was important to establish a reasonable renegotiated contract amount with the consultant and set a precedent for future similar contracts. Arlo assisted in the renegotiation process and was a key calming influence throughout. The original fee proposal was about \$80,000 per bridge evaluation; after Arlo's analysis and

comments, the consultant agreed to a fee of \$20,000 per bridge, resulting in a savings to Hawaii of \$600,000 on this single project.

**The Plan:** The FHWA National Strategic Plan places a premium on improving productivity of the entire transportation system, including the bridge infrastructure. By saving government a great deal of money while simultaneously setting a sound financial precedent for the future, Arlo Waddoups achieved the Strategic Plan's goal!

**The Feedback:** The Hawaii DOT praised Arlo and the Western Resource Center in writing for their fast and "valuable contribution of expertise and . . . excellent work". Arlo also received many individual expressions of gratitude from State government officials and the FHWA's Hawaii Division.



Arlo Waddoups, Hydraulics Specialist, WRC

## Financial Conference Focuses on Developing Indirect Cost Rates

**Who:** Sue Kiser

**Where:** South Dakota

**When:** June 8 - 11, 1999

**The Problem:** South Dakota transportation officials at the State and local levels had been having difficulties in developing appropriate indirect cost plans and rates. They were unsure of the proper format and were finding the U.S. Small Business Administration unwilling to accept their proposed rates. An effective educational conference was needed, and it was needed quickly.

**The Service:** Sue Kiser, Financial Programs Specialist at the Western Resource Center, went to South Dakota and conducted a very successful Transportation Finance Conference. Sue explained in depth the proper procedures for

developing indirect cost plans, and established a clear format for South Dakota jurisdictions to use when submitting plans. She showed officials the correct way to develop indirect cost rates. Sue covered a wide range of other financial management topics during her 3-day conference, including auditing, internal controls development, financial aspects of TEA-21, design/build opportunities, and State infrastructure banks. The conference gave attendees from the South Dakota Department of Transportation, Metropolitan Planning Organizations, and local Planning Districts the chance to ask Sue questions on these and many other issues. She also made herself available for individual consultation sessions with the MPOs and Planning Districts to resolve their unique concerns.

**The Plan:** An important part of the FHWA National Strategic Plan is the goal of improving the productivity of the Nation's transportation system, with a specific objective of improving the economic efficiency of highway transportation. The Western Resource Center's Sue Kiser took her step toward achieving those aims by providing South Dakota transportation finance officials 3 days of sound, cost-saving advice.

**The Feedback:** Sue received numerous pieces of written and oral praise from virtually everyone who attended the conference. She also received this compliment from Carla Remmich of the FHWA's South Dakota Division: "We greatly appreciated Sue's assistance to us".

# U.S. Pavement Specialists Gather to Discuss Design Strategies for I-5 Rehabilitation

**Who:** Joseph Massucco

**Where:** Portland, Oregon

**When:** Spring 1999

**The Problem:** The pavement on Interstate 5 in Oregon is like pavement on many highways running through heavily traveled urban areas. It needs repair and/or rehabilitation. The Western Resource Center was asked by the Oregon DOT to assist in developing an I-5 Urban Pavement Rehabilitation Design Workshop. In order to be effective, the workshop had to include pavement experts from around the country and had to include the latest information on pavement technology.

**The Service:** The chief WRC pavement specialist, Joe Massucco, led a team which put together a two-day workshop in Portland attended by more than 30 people. Joe and his team first visited the highway to observe the condition of the pavement and review alternate routes and detours.

They then developed the content of the workshop to

emphasize optimum design strategies for rehabilitation of Interstate 5. Joe Massucco personally arranged for the participation of:

- a resident engineer from the Michigan DOT with experience in managing reconstruction of high-volume urban continuously reinforced concrete pavement;
- a construction engineer from the Georgia DOT with experience in stone mastic overlay of high-volume urban freeways;
- a Georgia materials supplier with experience in supplying to these types of projects; and
- a representative from the Nevada DOT with experience in application of life-cycle costing and life-cycle cost and risk analysis.

The WRC pavement specialist provided his own expertise in urban pavement construction and asphalt concrete overlay.

**The Plans:** This workshop directly reflected the life-cycle costs objective in the Productivity Goal of the FHWA National Strategic



Joe Massucco, Pavement Specialist, WRC, with asphalt paver

Plan, as well as the other Productivity objectives and indicators.

**The Feedback:** Joe Massucco and his team asked for an oral evaluation of the workshop at its conclusion. All participants said it was helpful and provided much insight. The workshop illustrated the ability of the WRC to organize quickly and deliver ideas to solve a problem.



U.S. Department  
of Transportation

## Federal Highway Administration

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[WWW.FHWA.DOT.GOV](http://WWW.FHWA.DOT.GOV)

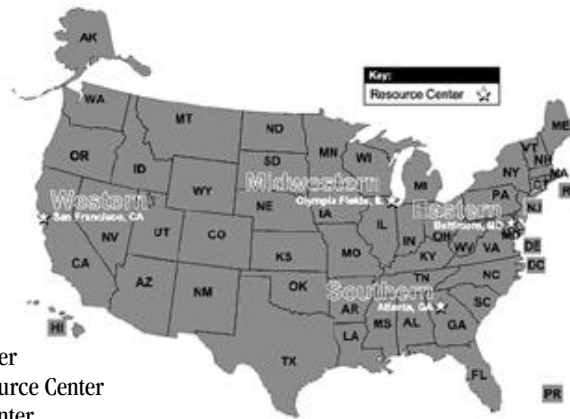
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Resource center services are available to transportation partners and customers throughout the Nation. Customers may call for assistance from any center they choose; however, the location of each resource center uniquely allows that center to play a central role in servicing agencies in its specific region of the country.

and media, finance, information analysis, and civil rights. Resource center experts range from safety and geotechnical engineers to innovative financing, air quality, and socio-economic environmental specialists, to National Highway Traffic Safety Administration safety liaisons, materials engineers, and many more. Resource centers assist with roadside design and safety hardware, demonstrate the latest highway technology, advise in financing techniques, promote projects to the public, provide pavement life-cycle cost analyses, and offer a multitude of other services.

#### TECHNICAL ASSISTANCE

The resource centers' role in technology transfer is to identify, evaluate, and promote the deployment of the latest advancements in all aspects of highway transportation. The resource centers identify proven processes, methods, equipment, devices, and features that have the potential to advance the state-of-the-art in the highway community. They will help lead the transition from research to state-of-the-practice to common practice.

#### TRAINING

The resource centers are staffed with highly skilled personnel experienced and knowledgeable in technical and program issues and capable of developing

and presenting training.

The centers have a significant role in training offered by FHWA. In many cases, resource center specialists serve as instructors for training courses, including courses developed and presented by the National Highway Institute.

#### INTERMODAL AND INTERAGENCY COORDINATION

The location of the resource centers provides the opportunity for the FHWA to work closely with other USDOT modes in the field, in support of the department's ONE DOT efforts. In addition, the centers can build partnerships and assist other Federal agencies, organizations, associations, and academia.

## For More Information and Services

### EASTERN RESOURCE CENTER

**Location:** 10 S. Howard Street, Suite 4000  
Baltimore, Maryland 21201

**Hours of Duty:** 7:30-4:30 EST

**Telephone:** 410-962-0077

### MIDWESTERN RESOURCE CENTER

**Location:** 19900 Governors Drive Suite 301  
Olympia Fields, Illinois 60461-1021

**Hours of Duty:** 7:30-4:15 CST

**Telephone:** 708-283-3510

### SOUTHERN RESOURCE CENTER

**Location:** Suite 17T26  
61 Forsyth Street, SW  
Atlanta, Georgia 30303-3104

**Hours of Duty:** 7:30-4:00 EST

**Telephone:** 404-562-3570

### WESTERN RESOURCE CENTER

**Location:** 201 Mission Street, Suite 2100  
San Francisco, California 94105

**Hours of Duty:** 7:45-4:15 PST

**Telephone:** 415-744-3102

## Resource Centers Focus on Results

Resource centers are designed to advance transportation decisionmaking and choices. By promoting the state-of-the-art in transportation technology and problem-solving techniques, the centers foster sound decisions, innovative solutions, and effective results. Assistance and services of the resource centers increase customer satisfaction through expert advice, technical assistance, training, and intermodal/interagency coordination.

#### EXPERTISE

The resource centers provide expert assistance primarily in the following transportation disciplines: infrastructure, operations, safety, planning and environment, marketing